

Claims

I claim as my invention:

1. A blade ring saw blade for making straight and curved cuts in hard workpieces, having, in combination:

a ring-shaped body having substantially flat sides and narrow inner and outer peripheral edges, and a portion of reduced thickness forming a rib extending outwardly from said outer peripheral edge around the body;

a first abrasive coating thicker than said body extending around said outer peripheral edge on said rib and forming an outer peripheral cutting element for said blade for making the curved and straight cuts in the workpieces;

and a second abrasive coating covering the flat sides and inner peripheral edge of the body to form an inner peripheral cutting element for finishing curved cuts in the workpieces and providing smoother action as well as for cutting reversely;

said inner peripheral edge and said second coating thereon defining an open central portion of said blade permitting the workpieces to be turned relative to said blade to make the curved cuts.

2. A blade ring saw blade as defined in claim 1 wherein said first abrasive coating comprises a sintered diamond particle coating.

3. A blade ring saw blade as defined in claim 1 wherein said second abrasive coating comprises an electroplated diamond particle coating.

4. A blade ring saw blade as defined in claim 3 wherein said second cutting element is thinner than said first cutting element.

5. A blade ring saw blade as defined in claim 1 wherein each of said abrasive coatings is selected from the group comprising sintered diamond particle coatings and electroplated diamond particle coatings.

6. A blade ring saw blade as defined in claim 1 wherein said body has sides that are substantially flat adjacent said portion of reduced thickness and then taper inwardly toward said inner peripheral edge, and has a curved inner edge.

7. A blade ring saw blade as defined in claim 1 wherein said blade has an outside diameter of approximately ten inches, an inside diameter of approximately nine and one-quarter inches, a metal body approximately 0.042 to 0.052 of an inch thick, a first cutting

element approximately 0.55 to 0.65 of an inch thick, and a second cutting element having a thickness less than the thickness of the first cutting element.

8. A blade ring saw blade for making straight and curved cuts in hard workpieces, having, in combination:

an annular body having an outer peripheral edge, an inner peripheral edge defining a large central opening for relative movement of the workpieces through the blade during making of curved cuts, and substantially flat sides that are substantially wider than the thickness of said edges;

a first abrasive coating on said body defining said outer peripheral edge and substantially flat outer portions of sidewalls of the blade adjacent said outer peripheral edge;

and a second abrasive coating on said body defining said inner peripheral edge and substantially flat inner portions of sidewalls of the blade.

9. A blade ring saw blade as defined in claim 8 wherein said first abrasive coating comprises a sintered diamond particle coating.

10. A blade ring saw blade as defined in claim 8 wherein said second abrasive coating comprises an electroplated diamond particle coating.

11. A blade ring saw blade as defined in claim 8 wherein said sidewalls are substantially parallel adjacent said outer peripheral edge and taper inwardly adjacent said inner peripheral edge.

12. A blade ring saw blade as defined in claim 11 wherein said inner peripheral edge is rounded.

13. A blade ring saw blade for making straight and curved cuts in hard workpieces, having, in combination:

an annular metal core having substantially flat sides, narrow inner and outer peripheral edges and a central opening for permitting relative movement of the workpieces through the body during cutting of curves;

a first abrasive coating on the outer peripheral edge portion of said core for cutting in a forward direction;

and a second abrasive coating on the inner peripheral edge portion of said core for finishing the edge of the workpiece during cutting of curves.

14. A blade ring saw blade as defined in claim 13 wherein said first abrasive coating comprises a sintered diamond particle coating.

15. A blade ring saw blade as defined in claim 13 wherein said second abrasive coating comprises an electroplated diamond particle coating.

16. A blade ring saw blade as defined in claim 13 wherein each of said abrasive coatings is selected from the group comprising sintered diamond particle coatings and electroplated diamond particle coatings.